ABSTRACT OF THE DISCLOSURE

An RF ID tag system and method that utilizes an RF ID tag and an RF ID tag reader which incorporates a dynamically reconfigurable wireless antenna and/or an array antenna and/or a switched polarization antenna. The dynamically reconfigurable wireless antenna embodiment comprises at least one multi-layered RF module, said at least one RF module further comprising at least one RF connector for receipt of at least one RF signal and at least one layer of tunable dielectric material and one layer of metal fabricated into said RF module; an RF motherboard for acceptance of RF signals and distribution of the transmit energy to said RF module at the appropriate phases to generate a beam in the commanded direction and width; and a controller for determining the correct voltage signal to send to said at least one multi-layered RF module.